Claims Listing

1. (previously presented) A process for the preparation of a polyolefin nanocomposite which comprises melt mixing a mixture of a) a polyolefin, b) a filler and c) a non-ionic surfactant,

wherein the filler is a natural or synthetic phyllosilicate or a mixture of such phyllosilicates or a layered hydroxycarbonate and where the filler is not an organically modified clay and

wherein the non-ionic surfactant is a dimethylsiloxane-ethylene oxide-block copolymer or a poly(methyl methacrylate)-block-poly(oxyethylene) copolymer and

wherein the weight ratio of components c) to b) is from 1:10 to 1:2.

2. (canceled)

3. (original) A process according to claim **1**, wherein the filler is a layered silicate clay or a layered hydroxycarbonate.

4. (original) A process according to claim **1**, wherein the filler is a montmorillonite, bentonite, beidellite, mica, hectorite, saponite, nontronite, sauconite, vermiculite, ledikite, magadite, kenyaite, stevensite, volkonskoite, hydrotalcite or a mixture thereof.

5-8. (canceled)

9. (original) A process according to claim **1**, wherein the polyolefin is polyethylene or polypropylene or copolymers thereof.

10. (original) A process according to claim **1**, wherein the filler is present in an amount of from 1 to 15 %, based on the weight of the polyolefin.

11. (original) A process according to claim **1**, wherein the non-ionic surfactant is present in an amount of from 0.1 to 7.5 %, based on the weight of the polyolefin.

12. (original) A process according to claim **1**, wherein the melt mixing occurs between 120 and 290°C.

13. (previously presented) A process according to claim **1** comprising melt mixing components (a), (b), (c) and further additives.

14. (previously presented) A process according to claim **13**, wherein the further additives are selected from the group consisting of phenolic antioxidants, light-stabilizers, processing stabilizers, pigments, dyes, plasticizers, compatibilizers, toughening agents, thixotropic agents, levelling assistants, acid scavengers and metal passivators.

15. (original) A process according to claim **1**, wherein the mixture of the filler and the non-ionic surfactant, and where applicable further additives, are added to the polyolefin in the form of a master batch which contains the mixture in a concentration of from 2.5 to 40% by weight.

16. (original) A polyolefin nanocomposite obtained by a process according to claim **1**.

17. (previously presented) A nanocomposite comprising a melt mixture of
    a) a polyolefin which is susceptible to oxidative, thermal or light-induced degradation,
    b) a filler,
    c) a non-ionic surfactant and

d) an additive selected from the group consisting of phenolic antioxidants, light-stabilizers, processing stabilizers, pigments, dyes, plasticizers, compatibilizers, toughening agents, thixotropic agents, levelling assistants, acid scavengers metal passivators and mixtures thereof,

wherein the filler is a natural or synthetic phyllosilicate or a mixture of such phyllosilicates or a layered hydroxycarbonate and where the filler is not an organically modified clay and

wherein the non-ionic surfactant is a dimethylsiloxane-ethylene oxide-block copolymer or a poly(methyl methacrylate)-block-poly(oxyethylene) copolymer and

wherein the weight ratio of components c) to b) is from 1:10 to 1:2.

18. (previously presented) An article comprising a polyolefin nanocomposite prepared according to claim **1**.

19. (canceled)

20. (previously presented) A process according to claim **13**, wherein the further additives comprise 0.01 to 10% by weight of a nucleating agent.

21. (new) A process according to claim **1** where the non-ionic surfactant is a dimethylsiloxane-ethylene oxide-block copolymer.

22. (new) A process according to claim **1** where the non-ionic surfactant is a poly(methyl methacrylate)-block-poly(oxyethylene) copolymer.